

REMARKS/ARGUMENTS

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

Claims 17-53 are pending; Claims 1-16 are canceled; Claims 17-53 are newly added; and no claims are amended herewith. As support for these amendments and new Claims 33-53 may be found, for example, in the specification at page 17, line 27 to page 18, line 3, it is respectfully submitted that no new matter is added by this amendment.

In the outstanding Office Action, the specification was objected to; Figure 7 was objected to; Claims 3 and 5 were objected to; Claims 1-16 were rejected under 35 U.S.C. § 112, second paragraph; Claims 1, 3, 9, and 13 were rejected under 35 U.S.C. § 102(e) as anticipated by Applicant Admitted Prior Art (AAPA); Claims 2, 4, 10, and 14 were rejected under 35 U.S.C. § 103(a) as unpatentable over the AAPA in view of Johnson et al. (U.S. Pat. No. 5,796,830, hereafter Johnson); Claims 5, 7, 11, and 15 were rejected under 35 U.S.C. § 103(a) as unpatentable over the AAPA in view of Schneier, *Applied Cryptography*; and Claims 6, 8, 12, and 16 were rejected under 35 U.S.C. § 103(a) as unpatentable over the AAPA in view of Schneier and further in view of Johnson.

With regard to the objection to the specification, the noted informalities have been addressed by the present amendment. Accordingly, it is respectfully requested that this objection be withdrawn.

With respect to the objection to Figure 7, that objection is respectfully traversed. As described in the specification, for example, at page 19, Figure 7 illustrates a third embodiment of the present invention. Accordingly, it is respectfully submitted that Figure 7 should not be designated by the legend "Prior Art", and it is respectfully requested that this objection be withdrawn.

With regard to the objection to Claims 3 and 5, the noted informalities have been addressed by the present amendment in new Claims 19 and 21. Accordingly, it is respectfully requested that this objection be withdrawn.

With respect to the outstanding rejection of Claims 1-16 under 35 U.S.C. § 112, second paragraph, that rejection is also respectfully traversed. Newly added Claims 17-32 correspond to amended versions of the subject matter of Claims 1-16. As the informalities noted in the outstanding Office Action have been addressed in Claims 17-32, it is respectfully requested that this rejection be withdrawn.

With regard to the rejection of Claims 1, 3, 9, and 13 under 35 U.S.C. § 102(a) as anticipated by the AAPA, that rejection is respectfully traversed. The subject matter previously recited in Claims 1, 3, 9, and 13 is represented in newly added Claims 17, 19, 25, and 29.

Claim 17 recites, in part:

a first means for generating a plurality of key data for converting a common key using an intermediate processing result of a corresponding encryption function portion and a first type of conversion processing and a second means for generating a plurality of key data by converting the common key using an intermediate processing result of a corresponding encryption function portion and a second type of conversion processing,

wherein the first type of conversion processing is different from the second type of conversion processing.

Independent Claims 19, 25, and 29 recite analogous features.

In the past, as described in the specification (for example, at page 3), each conversion function used in the encryption process was identical to the other conversion functions used in the encryption process. In other words, the AAPA did not contemplate more than one type of conversion processing, as recited in the independent claims.

Thus, as the AAPA does not disclose or suggest the features of independent Claims 17, 19, 25, and 29, it is respectfully requested that the outstanding rejection be withdrawn.

With regard to the rejection of Claims 2, 4, 10, and 14 under 35 U.S.C. § 103(a) as unpatentable over the AAPA in view of Johnson, that rejection is also respectfully traversed. The subject matter of Claims 2, 4, 10, and 14 is set forth in Claims 18, 20, 26, and 30.

As noted above, the AAPA fails to disclose or suggest the features of independent Claims 17, 19, 25, and 29, from which Claims 18, 20, 26, and 30 respectively depend.

Because Johnson is not relied upon to provide the features identified as deficient in the AAPA, Johnson is not substantively addressed herewith. Accordingly, as neither Johnson nor the AAPA discloses or suggests the features of Claims 17, 19, 25, and 29, it is respectfully requested that this rejection be withdrawn.

Moreover, as set forth in MPEP § 2143.01, "The mere fact that references can be combined or modified does not render the resulting combination obvious unless the prior art also suggests a desirability of the combination." *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *See In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984). Additionally, if the proposed modification or combination of prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *See In re Ratti*, 270 F.2d 810 (CCPA 1959).

As explained, for example, in the specification at pages 3-5, the AAPA describes that a common key is converted by an encryption function.

In the present case, Johnson describes that a key is concealed at the time of communication. According to Johnson, the key is used once it is decrypted. In other words, according to Johnson, the value of the key is not changed at the time of use of the key, for

example by variable data.¹ Consequently, because Johnson does not change the value at the time the key is used, it is not possible to combine the teachings of Johnson with the AAPA.

Thus, because the modification of the AAPA proposed by the outstanding Office Action renders the AAPA unsuitable for its intended purpose and would not function, it is respectfully submitted that the Office Action has violated the requirements of a *prima facie* case of obviousness as set forth in MPEP § 2143.01.

With regard to the rejection of Claims 5, 7, 11, and 15 under 35 U.S.C. § 103(a) as unpatentable over AAPA in view of Schneier, that rejection is respectfully traversed.

As noted above, the AAPA does not disclose or suggest that a first type of conversion processing is different from a second type of conversion processing, as recited in Claims 21, 23, 27, and 31.

Because Schneier is not relied upon to provide the deficiency identified in the AAPA, Schneier is not substantively addressed herewith. Because neither the AAPA nor Schneier discloses the features of Claims 21, 23, 27, and 31, it is respectfully requested that this rejection be withdrawn.

With regard to the rejection of Claims 6, 8, 12, and 16 under 35 U.S.C. § 103(a) as unpatentable over the AAPA in view of Schneier and further in view of Johnson, that rejection is also respectfully traversed.

As noted above, independent Claims 21, 23, 27, and 31 patentably distinguish over the applied combination of the AAPA and Schneier. Johnson is not relied upon to provide the features identified as deficient in the combination of the AAPA and Schneier, so Johnson is not substantively addressed herein.

¹ See, e.g., Johnson, cols. 12-14.

Accordingly, it is respectfully submitted that dependent Claims 22, 24, 28, and 32 also patentably distinguish over the applied combination, as none of the AAPA, Schneier, or Johnson discloses or suggests the features of Claims 21, 23, 27, and 31.

Moreover, it is respectfully submitted that there is no basis in the teachings of any of the AAPA, Schneier or Johnson to support the applied combination. Certainly, the outstanding Office Action fails to cite any specific motivation in any of the applied references to support this combination. It is therefore respectfully submitted that the combination of the AAPA, Schneier and Johnson as the result of hindsight reconstruction in view of the Applicant's own inventive efforts as set forth in the present specification, and is improper.

Consequently, in view of the foregoing discussion and present amendments, it is respectfully submitted that this application is in condition for allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

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